Chronic Disease Indicators: Indicator Definition

Arthritis among adults aged >=18 years who have diabetes

Category:	Arthritis
Demographic Group:	Resident persons aged >=18 years.
Numerator:	Respondents aged >=18 years who report ever having physician-diagnosed diabetes other than diabetes during pregnancy and who report doctor-diagnosed arthritis.
Denominator:	Respondents aged >=18 years who report ever having physician-diagnosed diabetes other than diabetes during pregnancy (excluding unknowns and refusals).
Measures of Frequency:	Annual prevalence with 95% confidence interval.
Time Period of Case Definition:	Current.
Background:	There are about 46 million adults with doctor-diagnosed arthritis and 18.9 million have arthritis-attributable activity limitation*. There are about 17.9 million adults with doctor-diagnosed diabetes.
Significance :	Monitoring the prevalence of arthritis among adults with diabetes is important because over half of the adults with diabetes also have arthritis. Diabetes and arthritis occur more frequently in older adults, women, and those who are obese. Arthritis may be an unaddressed barrier for adults with diabetes seeking to manage their condition through physical activity. Persons with arthritis report that increased joint pain is the number one barrier to participating in physical activities. Physical activity helps control blood glucose for people with diabetes and can reduce pain, improve function, and delay disability among adults with arthritis**. This indicator can be used to estimate the number of people with diabetes who may need special interventions to help them become more physically active and manage their disease e.g. through the Chronic Disease Self Management Program, EnhanceFitness, etc.
Limitations of Indicator:	Doctor-diagnosed arthritis is self-reported in BRFSS and was not confirmed by a health-care provider or objective monitoring; however, such self-reports have been shown to be acceptable for surveillance purposes***. Diabetes is self-reported. Comparisons of tabular data between states should be made with caution because the prevalence estimates are not adjusted for population characteristics (e.g., age) that might explain state-to-state differences. Unadjusted data are presented in this report to provide actual estimates to help in state-level program planning.
Data Resources:	Behavioral Risk Factor Surveillance System (BRFSS) http://www.cdc.gov/arthritis/data_statistics/index.htm
Limitations of Data Resources:	As with all self-reported sample surveys, BRFSS data might be subject to systematic error resulting from noncoverage (e.g., lower telephone coverage among populations of low socioeconomic status, exclusion of people without land lines, persons in the military, or those residing in institutions), nonresponse (e.g., refusal to participate in the survey or to answer specific questions), or measurement (e.g., social desirability or recall bias).
Healthy People 2010 Objectives:	No objective.

* Hootman JM, Helmick CG. Projections of US prevalence of arthritis and associated activity limitations. Arthritis Rheum 2006;54:226--9.

** Yelin E, Cisternas M, Foreman A, Pasta D, Murphy L, Helmick C. National and state medical expenditures and lost earnings attributable to arthritis and other rheumatic conditions—United States, 2003. MMWR 2007;56(1):4–7.

*** Sacks JJ, Harrold LR, Helmick CG, Gurwitz JH, Emani S, Yood RA. Validation of a surveillance case definition for arthritis. J Rheumatol 2005;32:340–7